

Articulation Agreement by Major

Effective during the 2018-2019 Academic Year

To: University of California, Merced
General Catalog, Semester

From: Orange Coast College
General Catalog, Semester

MATERIALS SCIENCE AND ENGINEERING, B.S.

REQUIREMENTS FOR ADMISSION

For admission to the Materials Science and Engineering, B.S. major, students must earn an overall GPA of 2.4 or better, demonstrate readiness for a rigorous course of study in Engineering, and must complete classes articulated with the following UC Merced courses prior to admission:

- CHEM 2, MATH 21, MATH 22, MATH 23, MATH 24, PHYS 8, and PHYS 9

**Completion of the equivalent of PHYS 10 prior to admission is strongly recommended for this major.

Transfer students seeking fall admission should have the following completed by the end of the spring term preceding fall enrollment at UC Merced:

1. All major preparation requirements as stated above.
2. All minimum admission requirements including appropriate courses in math and the equivalent of WRI 1 and WRI 10 (see articulation by department on ASSIST.org).
3. At least one course from the 'Arts and Humanities' or 'Social and Behavioral Sciences' section of the General Education requirements for School of Engineering, shown here:

Three courses with at least one from the arts and one from the humanities from the Arts and Humanities IGETC areas:

- **Area 3A** (Arts)
- **Area 3B** (Humanities)

AND

Three courses from at least two disciplines, or an interdisciplinary sequence from the Social and Behavioral Sciences IGETC area:

- **Area 4**

NOTE: Completion of IGETC (certified by your community college) satisfies all of the above requirements.

ADVANCED PLACEMENT INFORMATION

Advanced Placement (AP) and International Baccalaureate (IB) Examination note:

AP and IB examination credit policies are detailed in the 2017-18 UC Merced general catalog viewable online at:

http://catalog.ucmerced.edu/content.php?catoid=7&navoid=647#AP_IB

ALERT It is strongly recommended that you obtain a full transcript of your academic records from each of the colleges and universities you have attended before you start your UC application. **Applicants must report ALL grades in ALL courses--transferable and not transferable--from all institutions attended.** Applicants are solely responsible for the integrity of their self-reported academic record in the UC application.

Applicants are encouraged to clear any No Pass, D, or F letter grade received in UC Transfer course. Applicants are most competitive in the Admissions Process with fewer withdrawals and/or repeated course work in major preparation.

All course work must be completed with a 'C' or better.

Following these guidelines will assist you to be more competitive for admission to your UC Merced major.

If you have any questions about UC Merced admissions policy, please email: admissions@ucmerced.edu

The School of Engineering strongly discourages completion of IGETC as students are encouraged to focus primarily on lower division major preparation.

****Please Note:** Courses used to satisfy lower-division major preparation may simultaneously satisfy lower-division general education for the School of Engineering.

For the most up-to-date information about transferring to UC Merced, please visit

admissions.ucmerced.edu/transfer_requirements.

Information about applying for a Transfer Admission Guarantee is available at

admissions.ucmerced.edu/tag.

LOWER DIVISION MAJOR PREPARATION COURSES

CHEM 2 - General Chemistry I (4.00)	←	CHEM A180 - General Chemistry A (5.00)
ENGR 45 - Introduction to Materials (4.00)	←	No Course Articulated
ENGR 57 - Statics and Dynamics (4.00)	←	No Course Articulated
MATH 21 - Calculus I for Physical Sciences & Engineering (4.00)	←	MATH A180 - Calculus 1 (4.00) Or MATH A180H - Honors Calculus 1 (4.00)

MATH 22 - Calculus II for Physical Sciences & Engineering (4.00)	←	MATH A182H - Honors Calculus 1 and 2 (5.00) Or MATH A185 - Calculus 2 (4.00) Or MATH A185H - Honors Calculus 2 (4.00)
MATH 23 - Vector Calculus (4.00)	←	MATH A280 - Calculus 3 (4.00) Or MATH A280H - Honors Calculus 3 (5.00)
MATH 24 - Introduction to Linear Algebra and Differential Equations (4.00)	←	MATH A285 - Introduction to Linear Algebra and Differential Equations (4.00) Or MATH A285H - Honors Introduction to Linear Algebra and Differential Equations (5.00)
MATH 32 - Probability and Statistics (4.00) ▪ Course recommended to be taken at university	←	No Course Articulated
PHYS 8 - Introductory Physics I for Physical Sciences (4.00)	←	PHYS A185 - Calculus-Based Physics: Mechanics (4.00)
PHYS 9 - Introductory Physics II for Physical Sciences (4.00)	←	PHYS A280 - Calculus-Based Physics: Electricity/Magnetism (4.00)

COMPLETE ONE OF THE FOLLOWING

BIO 1 - Contemporary Biology (4.00)	←	BIOL A180 - Cell and Molecular Biology (4.00) And BIOL A182 - Zoology (3.00) And BIOL A182L - Zoology Laboratory (1.00) And BIOL A183 - Botany (3.00) And BIOL A183L - Botany Laboratory (1.00) And BIOL A185 - Diversity of Organisms (5.00)
BIO 5 - Concepts & Issues in Biology Today (4.00)	←	No Course Articulated
ESS 1 - Introduction to Earth Systems Science (4.00)	←	No Course Articulated
ESS 5 - Introduction to Biological Earth Systems (4.00)	←	No Course Articulated

COMPLETE ONE OF THE FOLLOWING

ME 21 - Engineering Computing (4.00)



No Course Articulated

Or

BIOE 21 - Computing for Bioengineers
(3.00)



No Course Articulated

Or

CSE 20 - Introduction to Computing I
(2.00)



CS A131 - Python Programming 1 (4.00)

Or

CS A140 - Introduction to C#.NET
Programming (4.00)

Or

CS A150 - C++ Programming Language
1 (4.00)

Or

CS A170 - Java Programming 1 (4.00)

And

CSE 21 - Introduction to Computing II
(2.00)



CS A131 - Python Programming 1 (4.00)

Or

CS A140 - Introduction to C#.NET
Programming (4.00)

Or

CS A150 - C++ Programming Language
1 (4.00)

Or

CS A170 - Java Programming 1 (4.00)

END OF AGREEMENT